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HEALTHCARE-ASSOCIATED INFECTIONS AT-A-GLANCE BACKGROUNDER

Healthcare-Associated Infections (HAIs), also referred to as nosocomial infections, are infections that patients acquire while under the care of a healthcare institution. HAIs can result from inadvertent exposure to pathogenic bacteria, viruses, fungi or spores. Exposure may be caused by transmission from contaminated healthcare workers' hands, environmental surfaces, patient-to-patient contact and catheter insertion and maintenance practices.

ABOUT HAIS

- Drug-resistant pathogens in healthcare settings are a growing threat. More than 70 percent of the bacteria that cause HAIs show resistance to at least one of the drugs most commonly used to treat them.¹
- Three of the most troublesome forms of bacteria that cause HAIs include:
 - Methicillin-resistant *Staphylococcus aureus* (MRSA)
 - Vancomycin-resistant enterococci (VRE)
 - *Clostridium difficile* (C. Diff.)
- According to the U.S. Centers for Disease Control and Prevention (CDC), HAIs cause approximately 90,000 deaths per year in the U.S. and lead to more than \$4.5 billion in excess healthcare costs.² MRSA constitutes 60 percent of most drug resistant microbes worldwide.³
- Many HAIs can be prevented by employing proper hand hygiene, contact precautions and active surveillance procedures.⁴

THE IMPACT OF HAIS

- HAIs are said to affect one in 20 hospital patients in the U.S.⁵
- It is estimated that 6 million HAIs occur each year in the U.S., Europe and Japan, increasing at a rate of 1.7 percent per year.⁶
- The World Health Organization (WHO) reports that HAIs affect “hundreds of millions of patients worldwide each year” and that more than 1.4 million people globally become seriously ill from such infections.⁷
- WHO estimates that 5-10 percent of patients admitted to hospitals in developed countries acquire HAIs, and in some developing countries, the proportion affected can exceed 25 percent.⁷

COSTS ATTRIBUTED TO HAIS

- Hospital infections add \$28 billion to \$30 billion to U.S. health costs each year.⁸
- HAI bloodstream infections have been reported to have an average cost of \$33,268.⁹
- According to the November 2006 report from the Pennsylvania Health Care Cost Containment Council (PH4C), the average charge for patient cases with an HAI was \$185,260, compared to \$31,389 for cases without a hospital acquired

- infection. For patient cases with an HAI, the average number of days in the hospital was 20.6 days, compared to 4.5 for cases without an HAI¹⁰
- HAIs are associated with significant increases in excess hospital stays, and subsequent costs for additional treatment.¹¹

¹ www.cdc.gov/ncidod/dhqp/ar.html

² www.cdc.gov/ncidod/dhqp/healthDis.html

³ http://www.cdc.gov/ncidod/dhqp/ar_mrsa_spotlight_2006.html

⁴ Haley, R. W., Culver, D.H., White, J.W., Morgan, W.M., Emori, T.G., Munn, V.P., et al. (1985). The efficacy of infection surveillance and control programs in preventing nosocomial infections in US hospitals. *American Journal of Epidemiology*, 121(2), 182-205.

⁵ Weinstein, R. A. (1998). Nosocomial infection update. *Journal of Emerging Infectious Diseases*, 4 (3), 416-420.

⁶ Inhibitex Presentation

⁷ www.who.int/mediacentre/news/releases/2005/pr50/en/index.html

⁸ <http://hospitalinfection.org/infectionfacts.shtml#5text>

⁹ Pittet, D., Tarara, D., & Wenzel, R.P. (1994). Nosocomial bloodstream infection in critically ill patients. Excess length of stay, extra costs, and attributable mortality. *Journal of the American Medical Association*, 271(20), 1598-1601.

¹⁰ www.phc4.org/reports/hai/05/keyfindings.htm

¹¹ Stosor, V., Peterson, L.R., Postelnick, M., & Noskin, G.A. (1998). Enterococcus faecium bacterium: Does vancomycin resistance make a difference? *Archives of Internal Medicine*, 158(5), 522-527.